

*****This is only a preview of the examination questions. To take the actual examination, please go back to the official bulletin, and click the examination link.*****

Training and Experience Evaluation

Engineer, Water Resources

Department of Water Resources

The California civil service selection system is merit-based and eligibility for appointment is established through a formal examination process. This examination consists of a Training and Experience evaluation used to evaluate your education, training and experience relevant to the position.

This Training and Experience evaluation is a scored component accounting for 100% of your rating in the examination process. It is important to complete the questionnaire carefully and accurately. Your responses are subject to verification before appointment to a position.

VERY IMPORTANT: PLEASE READ THIS ENTIRE SECTION CAREFULLY.

Before a hiring decision will be made, your responses will be verified. A hiring manager or personnel staff member will contact the references you have provided to confirm job dates, experiences, duties, achievements, and/or possession of knowledge, skills, and abilities. Failure to provide adequate references AND contact information may significantly limit our ability to make a job offer.

If it is determined at any time that you have made any false or inaccurate representations in any of the information you have provided, you may be disqualified from this process, suffer loss of State employment, and/or suffer loss of right to compete in any future State of California hiring processes. You are solely responsible for the accuracy of the responses provided.

This warning has been provided to protect your rights as a job candidate as well as the rights of the State. Be advised that you are expected to answer truthfully and accurately.

Job References

Provide references who can verify the information you provide in this exam. Prior to receiving an offer for employment, these references will be contacted to confirm that you have paid or unpaid experience pertaining to the duties and requirements listed in this exam. List all references that apply, but limited to six (6) entries.

- Job Title
- Organization/Division Name and Address
- Date Worked from and To
- Name of Supervisor(s) or Person(s) Who Can Verify Your Job Responsibilities
- Contact Phone Number(s) of the above Individual(s)

Education References

Please provide up to four (4) colleges. Please fill out the information as accurately as possible. Prior to receiving an offer of employment, the references provided may be verified.

- School Name
- School Address
- Degree(s) Earned
- Date(s) Attended from and To

Section 1: Tasks

Instructions:

Rate your experience performing specific job-related tasks.

Respond to each of the following statements by indicating how the statement applies to you. You are required to respond to every question and provide relevant examples. Also, indicate the references who can verify the information provided.

In responding to each statement, you may refer to your WORK EXPERIENCE, whether paid or volunteer, your EDUCATION, and/or FORMAL TRAINING COURSES you have completed.

PLEASE NOTE: This examination is designed to gain an overall assessment of your education, training, and experience as it directly relates to the duties and the knowledge, skills and abilities required for this position. Possession of specific education is **not** required to be successful in this examination; however, such achievements may substitute for desirable levels of experience. All components of this examination have been carefully validated by tying them directly to job requirements and documenting their relevance to the position.

Experience and/or Education

Describe your experience and/or education performing this task:

- A. I have education and experience performing this task**
- B. I have education, but no experience, performing this task**
- C. I have experience, but no education, performing this task**
- D. I have neither education nor experience performing this task**

1. Spreadsheet software.
2. Database software.
3. Computer-Aided-Drafting (CAD) software.
4. Word-processing software.
5. Programming Languages.
6. Geographic Information System (GIS).
7. Preparation of reports including technical writing.
8. Preparation of charts, tables, and/or graphics.
9. Preparing a presentation for a project.
10. Giving a presentation about a project.
11. Devising an alternate plan due to a setback or changing priorities to complete a project on time.
12. Situation in solving problems where you had to remain calm, courteous and tactful.
13. Working with environmental laws and regulations.
14. Preparation and/or review of environmental permits and/or documents.

15. Design and/or analysis of open channel flow.
16. Design and/or analysis of flow in pipes.
17. Performing an economic evaluation based on the design life of a project.
18. Measurement and/or analysis of hydro-climate data.
19. Measurement and/or analysis of environmental data.
20. Measurement and/or analysis of groundwater.
21. Development of a unit hydrograph.
22. Reading and interpreting construction plans and specifications.
23. Calculating material quantities for engineering and/or construction estimates.
24. Identifying the preferred alternative for a project by performing a cost benefit analysis.
25. Inspecting, monitoring and/or controlling construction operations.
26. Estimating the quantity of seepage through a dam or levee.
27. Testing and analysis of the engineering properties of soils.
28. Slope stability analysis.
29. Computation of runoff for a given watershed.

- 30. Methods of measuring flowing water.**
- 31. Reinforced concrete design and/or analysis.**
- 32. Structural steel design and/or analysis.**
- 33. Foundation design and/or analysis.**
- 34. Application of seismic principles.**
- 35. Analysis of water supply systems.**
- 36. Water resources planning and/or modeling.**
- 37. Water quality analysis.**
- 38. Water treatment processes.**
- 39. Surveying applications and measurements.**
- 40. Interpretation of topographic mapping.**